According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, COMPENDEX, PAJ

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE WPI Section Ch, Week 197619 Derwent Publications Ltd., London, GB; Class J08, AN 1976-35010X XP002282752 -& JP 51 035661 A (NIPPON ALUMIN MFG)	1,2,6, 13-19, 21,24, 28-30,32
A	26 March 1976 (1976-03-26) abstract figures	8-12, 25-27
	-/	
	·	
	-	

Further documents are listed in the continuation of box C.	X Patent family members are listed in annex.
Special categories of cited documents:  "A" document defining the general state of the art which is not considered to be of particular relevance  "E" earlier document but published on or after the international filling date  "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another clation or other special reason (as specified)  "O" document referring to an oral disclosure, use, exhibition or other means  "P" document published prior to the international filing date but later than the priority date claimed  Date of the actual completion of the international search	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.  "&" document member of the same patent family  Date of mailing of the international search report
9 May 2005	18/05/2005
Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016	Ceulemans, J

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## INTERNATIONAL SEARCH REPORT

Internal Application No
PCT/EP2004/053264

C.(Continu	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to daim No.
Х	GB 2 079 655 A (CONNELL JOHN O; REDPATH ENGINEERING LTD) 27 January 1982 (1982-01-27)	1,2,6, 13-19, 21,24, 28-30,32
Α	abstract; figures 1,2	8-12, 25-27
	page 1, right-hand column, line 73 - line 103	
A	DE 33 13 998 A (VOEST ALPINE AG) 8 December 1983 (1983-12-08) the whole document	1-34
A	EP 1 156 124 A (KM EUROPA METAL AKTIENGESELLSCHAFT) 21 November 2001 (2001-11-21) claims; figures	1-34
A	DATABASE COMPENDEX 'Online! ENGINEERING INFORMATION, INC., NEW YORK, NY, US; ABDULALIYEV Z E ET AL: "Analysis of stresses in tube sheet of heat exchanger by three dimensional models" XP002282751 Database accession no. EIX99254647555 abstract & ASME PET DIV PUBL PD; AMERICAN SOCIETY OF MECHANICAL ENGINEERS, PETROLEUM DIVISION (PUBLICATION) PD; STRUCTURAL DYNAMICS AND VIBRATION 1999 ASME, FAIRFIELD, NJ, USA, 1999,	

## INTERNATIONAL SEARCH REPORT

Information on patent family members

Internal Application No
PCT/EP2004/053264

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
JP 51035661	Α	26-03-1976	JP	52030385	В	08-08-1977
GB 2079655	Α	27-01-1982	NONE			
DE 3313998	A	08-12-1983	AT AT DE	374497 205382 3313998	Α	25-04-1984 15-09-1983 08-12-1983
EP 1156124	A	21-11-2001	DE AU BR CA CN CZ EP JP MX PL SK US US ZA	PA01004923 347602	B2 A A1 A3 A1 A A1 A3 B A1 A1	22-11-2001 24-06-2004 22-11-2001 18-12-2001 19-11-2001 12-12-2001 13-02-2002 21-11-2001 09-01-2002 20-08-2003 03-12-2001 01-08-2003 26-02-2004 27-12-2001 19-11-2001

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